

VEGETATION CONTROL ON SLOPES AT A PHOTOVOLTAIC SOLAR PLANT

PUERTO DE LA TORRE - MALAGA - Spain



TYPE OF PROJECT
Slope Protection

YEAR OF CONSTRUCTION
2025

CLIENT
Travesía Rope Access Solutions

CONTRACTOR
Travesía Rope Access Solutions

DESIGNER

PROD. RELATED
Netting (7200 M²)

Challenge

The Metro de Málaga photovoltaic solar plant, located between the workshops and the depots, has completed its third and final construction phase, marking an important milestone in its energy sustainability strategy. This infrastructure will be able to cover 27% of its annual energy consumption with solar energy. In addition, during the central hours of the day, when energy production reaches its peak, it will operate in complete self-sufficiency.

To ensure the plant's optimal performance, it is essential to control vegetation growth in the areas surrounding the solar panels, as tall vegetation can cast shadows that significantly reduce energy generation. Moreover, during the driest months, the accumulation of dry plant material increases the risk of fire, while excessive growth can hinder access to equipment and maintenance activities. To mitigate these issues, measures such as anti-weed mats and double-twisted steel wire mesh have been implemented to effectively control vegetation growth.



Installation of the double-twisted mesh



View from the crest during the construction process

Solution

The solution consisted of installing 8x10-16 double-twisted hexagonal mesh on the slopes intended for the installation of solar panels, as part of an integrated strategy for vegetation control and ground stabilization. The mesh was installed over an anti-weed mat, arranged as a draped system fixed to the slope with pins, effectively covering the slope surface without interfering with the efficiency of the solar panels.

The steel wire used is protected with a GalMac C3 galvanised coating, a metallic coating treatment made of a Zn90%-Al10% alloy. This galvanisation provides corrosion protection in C3 environments, ensuring a service life of 50 years. This product has CE marking and an Environmental Product Declaration (EPD), demonstrating Maccaferri's commitment to environmental sustainability.



Complete installation of the mesh



Solar panel installation process on the slope



Solar panel installation process on the slope



Completion of the third phase of the photovoltaic solar plant



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